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## NON-COMMERCIAL EDUCATIONAL BROADCAST BEING DEVELOPED THROUGH THE USE OF "FM"

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Applications by the Board of Education of the City of Chicago, the San Diego (Calif.) Unified School District and the University of Illinois to engage in non-commercial educational broadcast service is indicative of the value of FM in developing the five high frequency channels reserved by the Federal Communications Commission for non-profit educational use.

Common interest in making the most of the new opportunity to use these facilities is evinced in the following letter to Dr. John W Studebaker, Commissioner of Education, from Edwin H. Armstrong, prominent in the practical utilization of FM, which was read at the recent Twelfth Institute for Education by Radio:

"I have been much gratified with the reports that are reaching me about the experiments with F.M. transmission conducted by the Cleveland Board of Education and I have been considering for some time what might be done to further encourage other, similar, projects.

"From time to time letters have come in from educational institutions requesting information about royalty rates under my Frequency Modulation patents in the event that those institutions should decide to erect stations and construct transmitters themselves. It has seemed to me that it might help the development of this new branch of radio if I should arrange to issue licenses, to those educational institutions which are interested in going ahead, at a nominal royalty of One Dellar. This is to advise you that I am willing to do that.

"I am writing this letter, therefore, in order that you may, if you see fit, make whatever announcement would be most effective in reaching those of your institutions that you feel could successfully carry on an educational program. This offer would, of course, apply only to stations whose purpose is educational and which do not obtain income from their broadcasting activities.

"Should there be any way in which I could assist the cause of educational broadcasting by the furnishing of technical advice or information, I hope that you will always feel free to call upon me for it."

Commissioner Studebaker hailed the offer as a spur to school systems and colleges interested in setting up an ultra-high : frequency educational radio station because it provides a sizable reduction in the cost of such a station.

"FM's value as a unit of the school system has been demonstrated by these pioneers", Commissioner Studebaker comments. "An FM station, useful to the classroom, also makes possible adult education. Educational FM channels adjoin the new commercial bands just being developed and, as FM receivers are introduced into homes, adults may tune in programs of educational radio stations".

An average school station can now be installed at the price of one classroom, according to officials of the Federal Radio Education Committee, of which
the Commissioner is chairman, and requires in personnel only a radio engineer
and a program director, both of whom may be drafted from the regular school
staff.

"In a city", Commissioner Studebaker points out, "the potential educational value of this radio classroom is probably greater than that of any other room or shop in the school system -- and the home radio class may be from ten to a hundred times as large.

"In rural areas, its comparative value is even greater. Radio can bring scattered one-room schools as close together as the classrooms of a city school building. The radio classroom in a rural area may be reasonably expected to serve all who live in the county."

When the Federal Communications Commission authorized regular FM broadcast service last year, five channels adjacent to the high frequency broadcast band were set aside for non-commercial educational use. These channels are 42,100; 42,300, 42,500; 42,700 and 42,900 kilocycles.

This rearrangement of the high frequencies to make commercial FM broadcast service possible has a distinct advantage in that the close proximity of the non-commercial educational bands and the new FM commercial bands makes it possible to adapt standard FM receivers to receive both types of broadcast. In other words, the FM receivers new being marketed are capable of receiving non-profit educational as well as the regularly spensored programs.

Until that time only two educational bodies were making actual use of the high frequency bands long open to non-profit educational service employing amplitude modulation. They were WNYE, the Board of Education of the City of New York, and WBOE, the Cleveland City Board of Education.

However, the University of Kentucky had received a construction permit for a system to bring educational program service to some 50 mountain schools, available to adults as well as students. The University of Kentucky, Station WBKY, now plans to substitute FM for the standard transmission.

Subsequently, the Board of Education of the San Francisco Unified School District was authorized to use radio for instructional, administrative, supervisory and other functions through the medium of 13 studios in schools in that area, all connected with the central broadcast station KALW, by leased wires.

More recently the Cleveland Board of Education, which serves more than 150 receivers in its municipal school system, received permission to change to FM.

Detailed regulations regarding non-commercial educational stations are contained in Sections 4.131 to 4.137, inclusive, of Part 4 of the Commission's Rules and Regulations. This pemphlot, which is obtainable from the Superinten-

dent of Documents, Government Printing Office, Washington, at a cost of 10 cents, also includes standards of good engineering practice applicable to non-commercial educational broadcast stations.

The Commission in Section 4.131 defines a non-commercial educational broadcast station as a station licensed to an organized nonprofit educational agency for the advancement of its educational work and for the transmission of educational and entertainment programs to the general public. In Section 4.132 the Commission provides that a non-commercial educational broadcast station will be licensed only upon a showing that the station will be used for the advancement of the agency's educational program, particularly with regard to use of the educational system consisting of several units.

The Commission recognizes two phases of the service of educational broadcast stations: First, the transmissions to specific schools for classroom work and, second, the transmission of adult educational and entertainment programs to the general public.

The Commission requires each applicant for a new non-commercial educational broadcast station to make a complete showing as to the plans for programs of the station. For example, a municipal or common school system may use an educational station for classes transmitted simultaneously to the several units comprising the educational system. Where a prospective applicant is not itself engaged in the operation of several units of an educational system, a complete showing should be made of the cooperation with the several schools in the proposed service area which should include agreements or statements from the heads of such schools, for example, a university or college.

Development of education through radio is also being furnished by the Federal Radio Education Committee. Organized in 1935 under the Federal Communications Commission, this committee is a cooperative effort on the part of

broadcasters and concators to advance the cause of education on the air. The committee has operated under private grants, chiefly from the National Advisory Council on Radio in Education, National Association of Broadcasters, Rockefeller Foundation, and General Education Poard.

Scanned from the National Association of Educational Broadcasters Records at the Wisconsin Historical Society as part of "Unlocking the Airwaves: Revitalizing an Early Public and Educational Radio Collection."



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